

## CLAIMS

What is claimed is:

1. A method of collecting network management information from a plurality of network devices in a network management system, the method comprising the computer-implemented steps of:
  - configuring said network management system to acquire data from said network devices based on a user-definable operational specification;
  - querying said network devices for data to form a set of acquired data in accordance with said operational specification;
  - transforming said acquired data to form a set of transformed data in accordance with said operational specification; and
  - storing said transformed data to an information base to form a set of stored data in accordance with said operational specification.
2. A method as recited in Claim 1, wherein said operational specification is defined in an Extensible Markup Language file.
3. A method as recited in Claim 1, wherein said operational specification includes a scheduling block to direct said network management system to operate at a preset point in time.

- 1 4. A method as recited in Claim 1, wherein the step of querying said network devices  
2 includes using a network communication protocol that is defined in said operational  
3 specification for each of said network devices.
- 1 5. A method as recited in Claim 1, wherein the step of transforming said acquired data  
2 includes performing at least one arithmetic transformation on said acquired data,  
3 wherein said arithmetic transformation is specified by said operational specification.
- 1 6. A method as recited in Claim 1, further comprising the step of monitoring said  
2 acquired data, said transformed data and said stored data for compliance with at least  
3 one threshold criterion specified by said operational specification.
- 1 7. A method as recited in Claim 6, further comprising the step of generating a  
2 notification when any of said acquired data, said transformed data and said stored data  
3 complies with said threshold criterion.
- 1 8. A method as recited in Claim 1, further comprising the step of aggregating said stored  
2 data to form a set of trending data by performing at least one arithmetic aggregation  
3 on said stored data, wherein said arithmetic aggregation is specified by said  
4 operational specification.

1 9. A method as recited in Claim 1, further comprising the step of removing a quantity of  
2 said stored data from said information base in accordance with information in said  
3 operational specification.

1 10. A method of collecting and aggregating network management information from a  
2 plurality of network devices in a network management system, the method comprising  
3 the computer-implemented steps of:

4 configuring said network management system to acquire data from said  
5 network devices based on a user-definable operational specification;  
6 querying said network devices for data to form a set of acquired data in  
7 accordance with said operational specification;  
8 transforming said acquired data to form a set of transformed data in  
9 accordance with said operational specification;  
10 storing said transformed data to an information base to form a set of stored  
11 data in accordance with said operational specification; and  
12 aggregating said stored data to form a set of trending data by performing at  
13 least one arithmetic aggregation on said stored data, wherein said  
14 arithmetic aggregation is specified by said operational specification.

1 11. A method as recited in Claim 10, wherein said operational specification is defined in  
2 an Extensible Markup Language file.

12. A method as recited in Claim 10, wherein said operational specification includes a scheduling block to direct said network management system to operate at a preset point in time.

13. A method as recited in Claim 10, wherein the step of querying said network devices includes using a network communication protocol that is defined in said operational specification for each of said network devices.

14. A method as recited in Claim 10, wherein the step of transforming said acquired data includes performing at least one arithmetic transformation on said acquired data, wherein said arithmetic transformation is specified by said operational specification.

15. A method as recited in Claim 10, further comprising the step of monitoring said acquired data, said transformed data and said stored data for compliance with at least one threshold criterion specified by said operational specification.

16. A method as recited in Claim 15, further comprising the step of generating a notification when any of said acquired data, said transformed data and said stored data complies with said threshold criterion.

17. A method as recited in Claim 10, further comprising the step of removing a quantity of said stored data from said information base in accordance with information in said operational specification.

1 18. A method of collecting, aggregating and monitoring network management  
2 information from a plurality of network devices in a network management system, the  
3 method comprising the computer-implemented steps of:  
4 configuring said network management system to acquire data from said  
5 network devices based on a user-definable operational specification,  
6 wherein said operational specification is an Extensible Markup  
7 Language file and includes a scheduling block to direct said network  
8 management system to operate at a preset point in time;  
9 querying said network devices for data to form a set of acquired data in  
10 accordance with said operational specification using a network  
11 communication protocol that is defined in said operational  
12 specification for each of said network devices;  
13 transforming said acquired data to form a set of transformed data, including  
14 performing at least one arithmetic transformation on said acquired  
15 data, wherein said arithmetic transformation is specified by said  
16 operational specification;  
17 storing said transformed data to an information base to form a set of stored  
18 data in accordance with said operational specification;  
19 monitoring said acquired data, said transformed data and said stored data for  
20 compliance with at least one threshold criterion specified by said  
21 operational specification;  
22 generating a notification when any of said acquired data, said transformed data  
23 and said stored data complies with said threshold criterion;

24 aggregating said stored data to form a set of trending data by performing at  
25 least one arithmetic aggregation on said stored data, wherein said  
26 arithmetic aggregation is specified by said operational specification;  
27 and  
28 removing a quantity of said stored data from said information base in  
29 accordance with information in said operational specification.

- 1 19. A computer-readable medium carrying one or more sequences of instructions for  
2 collecting network management information from a plurality of network devices in a  
3 network management system, which instructions, when executed by one or more  
4 processors, cause the one or more processors to carry out the steps of:  
5 configuring said network management system to acquire data from a plurality  
6 of network devices on a network based on a user-definable operational  
7 specification;  
8 querying said network devices for data to form a set of acquired data in  
9 accordance with said operational specification;  
10 transforming said acquired data to form a set of transformed data in  
11 accordance with said operational specification; and  
12 storing said transformed data to an information base to form a set of stored  
13 data in accordance with said operational specification.

1     20.     An apparatus for collecting network management information from a plurality of  
2           network devices in a network management system, comprising:  
3               means for configuring said network management system to acquire data from  
4               said network devices based on a user-definable operational  
5               specification;  
6               means for querying said network devices for data to form a set of acquired  
7               data in accordance with said operational specification;  
8               means for transforming said acquired data to form a set of transformed data in  
9               accordance with said operational specification; and  
10              means for storing said transformed data to an information base to form a set of  
11              stored data in accordance with said operational specification.

1     21.     An apparatus for collecting and aggregating network management information in a  
2     network management system, comprising:  
3             one or more configuration files for configuring said network management  
4             system to acquire data from a plurality of network devices on a  
5             network based on a user-definable operational specification;  
6             one or more query modules for querying said network devices for data to form  
7             a set of acquired data in accordance with said operational specification;  
8             one or more transformation modules for transforming said acquired data to  
9             form a set of transformed data in accordance with said operational  
10            specification;  
11            one or more storage modules for storing said transformed data to an  
12            information base to form a set of stored data in accordance with said  
13            operational specification; and  
14            one or more aggregation modules for aggregating said stored data to form a set  
15            of trending data by performing at least one arithmetic operation on said  
16            stored data, said arithmetic operation specified by said operational  
17            specification.